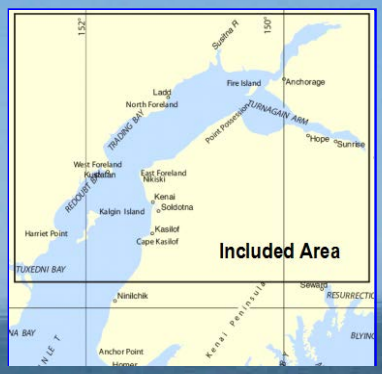
BookletChart™

Cook Inlet – Northern Part

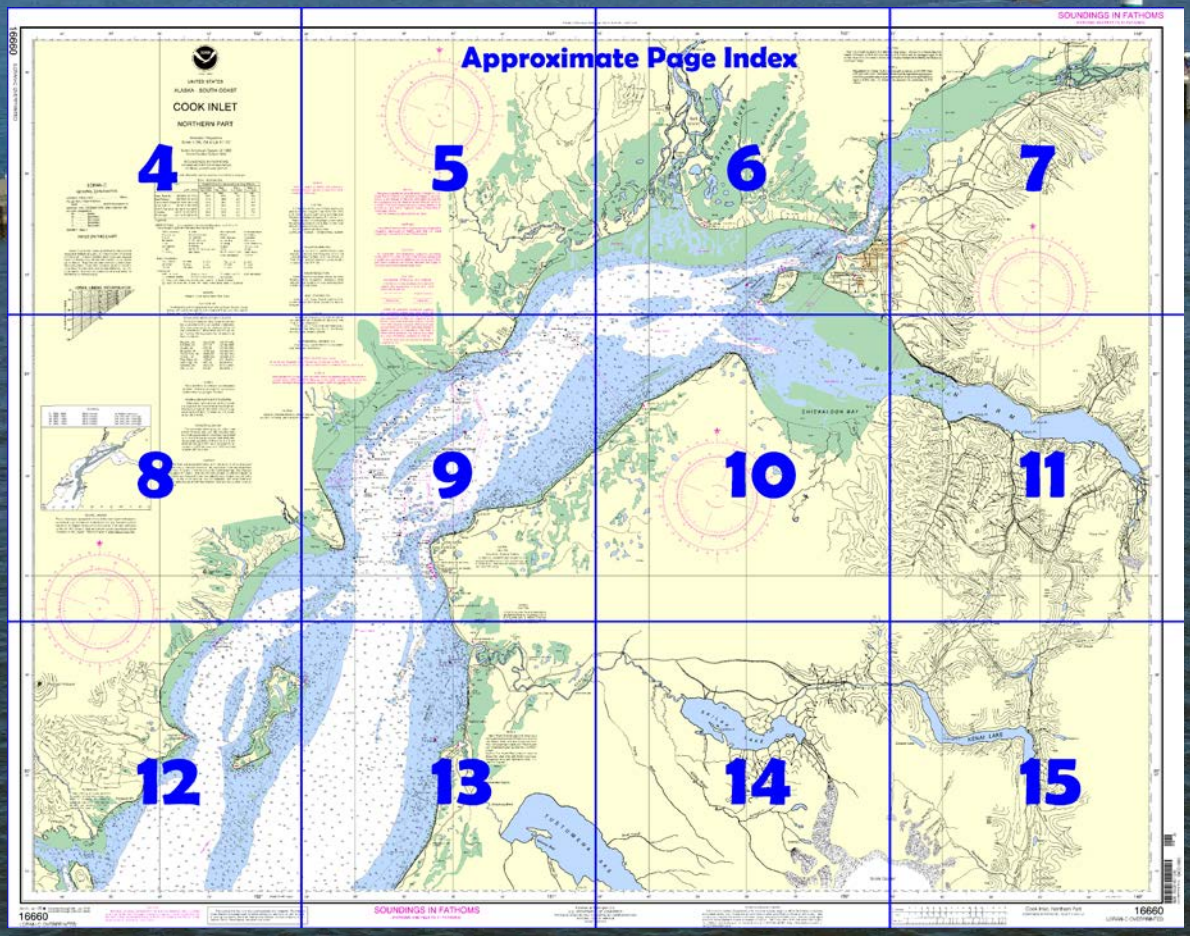
NOAA Chart 16660

A reduced-scale NOAA nautical chart for small boaters

When possible, use the full-size NOAA chart for navigation.



- *Complete, reduced-scale nautical chart*
- *Print at home for free*
- *Convenient size*
- *Up-to-date with Notices to Mariners*
- *Compiled by NOAA's Office of Coast Survey, the nation's chartmaker*



Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

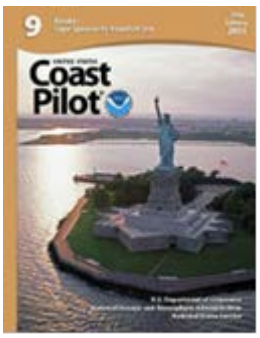
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at http://www.NauticalCharts.NOAA.gov.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=16660.



(Selected Excerpts from Coast Pilot)
Cook Inlet, on the W side of Kenai Peninsula, merges with Shelikof Strait through a wide unobstructed passage W of the Barren Islands. Leading from the Gulf of Alaska to Cook Inlet are Kennedy Entrance and Stevenson Entrance, N and S respectively of the Barren Islands, and Chugach Passage, inside the Chugach Islands. The distance is 1,254 miles from Seattle to the entrance to Cook Inlet at a point 3 miles S of East Chugach Light, via the outside route by way of Strait of Juan de Fuca. From the entrance it is 48 miles to Seldovia, 59 miles to Homer, 110 miles to Kenai and Nikiski, and 175 miles to Anchorage.

Prominent features.–The shore on both sides of the inlet can be seen in clear weather. Conspicuous landmarks in the lower inlet are Augustine, Iliamna, and Redoubt Volcanoes. Prominent in their respective localities are four parabolic antennas, lighted atop, along the E shore from Cape Starichkof to Kenai, the bluff between Bluff and Anchor Points; Cape Ninilchik; Chisik Island; Kalgin Island, East, West, and North Forelands; numerous charted oil well platforms in the upper inlet; Point Possession, Fire Island, and Point Woronzof.
Anchorages.–Port Chatham, Port Graham, Seldovia Bay, NE of Homer Spit in Kachemak Bay, Iniskin Bay, and Tuxedni Channel are the secure harbors in the inlet. Temporary anchorage can be selected in 10 fathoms or more at most places in the inlet with the aid of the chart. The great range of the tides must always be kept in mind when anchoring.
Dangers.–The shoals in Cook Inlet are generally strewn with boulders that are not marked by kelp. These boulders, on the otherwise flat bottom, are not normally found by echo sounder or lead lines unless directly over them. Most of those located by the survey were found by sighting them at low water. It was noted in places that the boulders rise as much as 30 feet above the general level of the bottom. The boulders may be moved during the ice breakup in spring and by the action of strong currents. As a measure of safety, it is considered advisable for vessels to avoid areas having depths no more than 30 feet greater than the draft. At low water, deep-draft vessels should avoid areas with charted depths of less than 10 fathoms, except for the channel approaches to the ports of Anchorage and Nikiski.
In general, the shoal banks fronting the marshy parts of the shores in the upper inlet are free from boulders but there are indications that boulders do exist in the deeper water outside these banks.
The shoal which extends 16 miles S from Kalgin Island (South Kalgin Bar) is marked at its S end by a lighted buoy. Care should be taken for the entire distance to avoid drifting into shoal waters.
With an average tidal current there are swirls throughout the inlet, but they do not necessarily indicate dangers as they show in depths of 15 fathoms if the bottom is uneven. Heavy swirls with slight overfalls should be avoided, and any disturbance which has a recognizable wake in the water should be considered as indicating a dangerous rock or shoal. A dangerous wave condition exists over the shoals in Cook Inlet when the current opposes winds over 12 knots. Significant ground swells are experienced in the Kenai River approach and at the Nikiski docks when a SW wind accompanies a flood current. Vessels N and S bound past Turnagain Arm should be alert to the potential for heavy sets from a combination of winds and currents emanating from Turnagain Arm.
The waters of the inlet are much discolored by glacial silt. At the end of the ebb current the discoloration may extend to Anchor Point, and at the end of a spring flood current it may be comparatively clear to East and West Forelands. Frequently with either a flood or ebb current the water above Ninilchik appears as liquid mud. The silty water is very damaging to the seals of salt water pumps and shaft bearings. Ship's evaporators should be secured and vessels avoid taking on any more ballast water than absolutely necessary.
The Cook Inlet area is affected by land uplift due to forces such as postseismic crustal rebound. As a result, the tidal datums including mean lower low water, the plane of reference used for depth soundings, have changed throughout the region.

U.S. Coast Guard Rescue Coordination Center
24 hour Regional Contact for Emergencies

RCC Juneau	Commander 17th CG District Juneau, Alaska	(907) 463-2000

Table of Selected Chart Notes

TUXEDNI BAY

The shifting of rocks and the possibility of uncharted rocks may exist in Tuxedni Bay west of longitude 152°40'W. The mariner should use caution when navigating in this area.

NOTE D
CAUTION

Entry into the Kenai River should only be attempted with local knowledge due to shifting sand bars. In addition, there are numerous uncharted seasonal mooring buoys located in the Kenai River.

HEIGHTS

Heights in feet above Mean High Water.

Mercator Projection
Scale 1:194,154 at Lat 61° 00'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FATHOMS
(FATHOMS AND FEET TO ELEVEN FATHOMS)
AT MEAN LOWER LOW WATER

NOTE C

Fire Island Shoal is shifting in a southeasterly direction. Mariners are urged to use extreme caution when navigating in this area.

MINERAL DEVELOPMENT STRUCTURES

Obstruction lights and sound (fog) signals are required for fixed mineral development structures shown on this chart, subject to approval by the District Commander, U.S. Coast Guard (33 CFR 67).

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

NOTE B

Area is subject to drastic and continuing change. Caution should be exercised when navigating in this area.

NOTE F

Kasilof River Channel Light and nine red or green buoys mark the entrance channel into Kasilof River and are maintained from May 1 to November 1 each year. These buoys are moved each year as channel conditions dictate.
Caution: The Kasilof River entrance channel should be only used with local knowledge. Dangerous rocks are reported to exist in or near the channel.

NOTE E
CAUTION

Cook Inlet, Eastern Portion

Numerous uncharted and dangerous submerged boulders exist in the eastern portion of Cook Inlet. Mariners should use extreme caution in this area.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Bede Mt, AK	WNG-528	162.450 MHz
Ninilchik, AK	KZZ-97	162.550 MHz
Wasilla, AK	KZZ-98	162.400 MHz
Rugged I, AK	WNG-526	162.425 MHz
Potato Point, AK	WNG-527	162.425 MHz
Naked I, AK	WNG-530	162.500 MHz
Point Pigot, AK	KZZ-93	162.450 MHz
Anchorage, AK	KEC-43	162.550 MHz
Soldotna, AK	WWG-39	162.475 MHz
Whittier, AK	KXI-29	162.400 MHz

CAUTION

Oil exploration and production operations are being conducted in the water of Cook Inlet. Drilling vessels and movable and permanent platforms are being used. Only permanent platforms are charted. Mariners are urged to exercise caution when transiting the area.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 9. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 17th Coast Guard District in Juneau, Alaska, or at the Office of the District Engineer, Corps of Engineers in Anchorage, Alaska.
Refer to charted regulation section numbers.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 2.021" southward and 7.899" westward to agree with this chart.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.
The buoys in Cook Inlet are seasonally maintained from May 1 to Nov. 1. For details see U.S. Coast Guard Light List.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.
Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.
Station positions are shown thus:
⊙(Accurate location) ○(Approximate location)

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

CAUTION
SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.
Covered wells may be marked by lighted or unlighted buoys.

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

CAUTION

The Cook Inlet area is affected by land uplift due to forces such as post-seismic crustal rebound. As a result, the tidal datums including mean lower low water, the plane of reference used for depth soundings, have changed throughout this region. Tidal datums were updated in 1999 and depths of 11½ fathoms or less on this chart were adjusted accordingly to account for this uplift. As the uplift rates can only be estimated and areas continue to rise, depths may be shoaler than charted. Mariners are urged to exercise caution.

NOTE S

Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Pilots appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown.

NOTE G

Hydrography in Turnagain Arm indicated within the dashed outline originates from surveys dated 1910 and 1912. Because of the highly changeable nature of the bottom, Mariners should use extreme caution when navigating in this area.

NOTE X

Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of the other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Florida, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification.

COLREGS, 80.1705 (see note A)

International Regulations for Preventing Collisions at Sea, 1972.
The entire area of this chart falls seaward of the COLREGS Demarcation Line.

CAUTION

Mariners should be aware of a tidal bore beginning in the vicinity of Goose Bay that heads northward up Knik Arm at a velocity of 2-3 knots and an average height of 18 inches. In addition, it is noted that this area is highly susceptible to shifting mud flats and continual change.

TIDAL INFORMATION

PLACE		Height referred to datum of soundings (MLLW)		
NAME	(LAT/LONG)	Mean Higher High Water	Mean High Water	Mean Low Water
		feet	feet	feet
Kenai River Ent	(60°33'N/151°17'W)	20.7	19.9	2.2
East Foreland	(60°43'N/151°25'W)	21.0	20.2	2.2
Fire Island Terminal	(61°10'N/150°12'W)	27.0	26.2	2.2
North Foreland	(61°03'N/151°10'W)	21.0	20.3	2.2
Drift River Terminal	(60°34'N/152°08'W)	18.1	17.4	2.0
Nikishka	(60°41'N/151°24'W)	20.4	19.7	2.0
Anchorage	(61°14'N/149°53'W)	29.2	28.4	2.2

Dashes (- - -) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from http://tidesandcurrents.noaa.gov.

(Apr 2012)

(Apr 2012)

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)

Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautical	G green	Mo morse code	R TR radio tower
Al alternating	IQ interrupted quick	N nun	Rot rotating
B black	Iso isophase	OBSC obscured	s seconds
Bn beacon	LT HO lighthouse	Oc occulting	SEC sector
C can	M nautical mile	Or orange	St M statute miles
DIA diaphone	m minutes	Q quick	VQ very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WHIS whistle
		R Bn radiobeacon	Y yellow

Bottom characteristics:

Blds boulders	Co coral	gy gray	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Grs grass	M mud	S sand	sy sticky

Miscellaneous:

AUTH authorized	Obstn obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	

(21) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.

16660

40’ 30’ 20’ 10’ 152° 50’

30’

20’

10’

THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES

ALASKA - SOUTH COAST

COOK INLET

NORTHERN PART

Mercator Projection
Scale 1:194,154 at Lat 61° 00’

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FATHOMS
(FATHOMS AND FEET TO ELEVEN FATHOMS)
AT MEAN LOWER LOW WATER

Additional information can be found at nauticalcharts.noaa.gov.

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Aids to Navigation (lights are white unless otherwise indicated):

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Al alternating
B black
Bn beacon
C can
DIA diaphone
F fixed
Fl flashing
G green
IQ interrupted quick
Iso isophase
LT HO lighthouse
M nautical mile
m minutes
MICRO TR microwave tower
Mkr marker
Mo morse code
N nun
OBSC obscured
Oc occulting
Or orange
Q quick
R red
Ra Ref radar reflector
R Bn radiobeacon
R TR radio tower
Rot rotating
s seconds
SEC sector
St M statute miles
VQ very quick
W white
WHIS whistle
Y yellow

Bottom characteristics:

Blds boulders
bk broken
Cy clay
Co coral
G gravel
Grs grass
gy gray
h hard
M mud
Oys oysters
Rk rock
S sand
so soft
Sh shells
sy sticky

Miscellaneous:

AUTH authorized
ED existence doubtful
Obstn obstruction
PA position approximate
PD position doubtful
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(21) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
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Joins page 8

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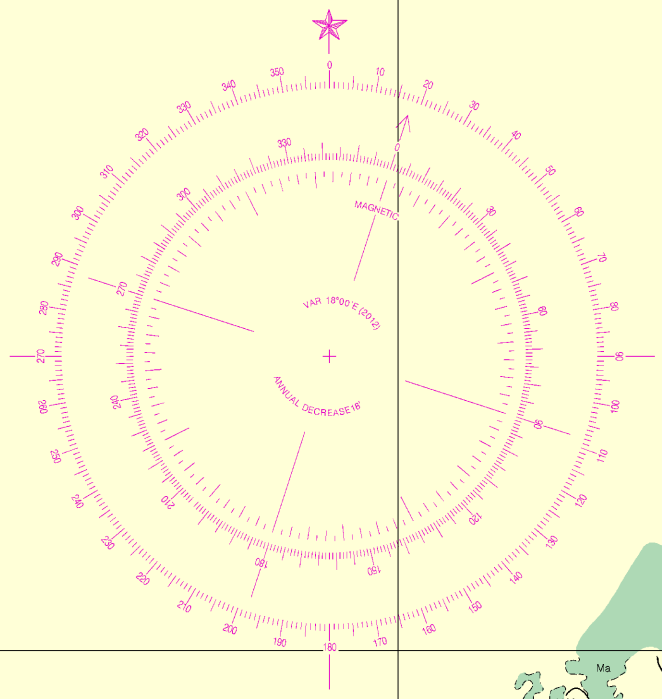
Note: Chart grid lines are aligned with true north.

40' 30' 20' 10' 151° 50'



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UTION REPORTS

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AR REFLECTORS

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chart.

TO NAVIGATION

Coast Guard Light List for
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CAUTION

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May 1 to Nov. 1. For details
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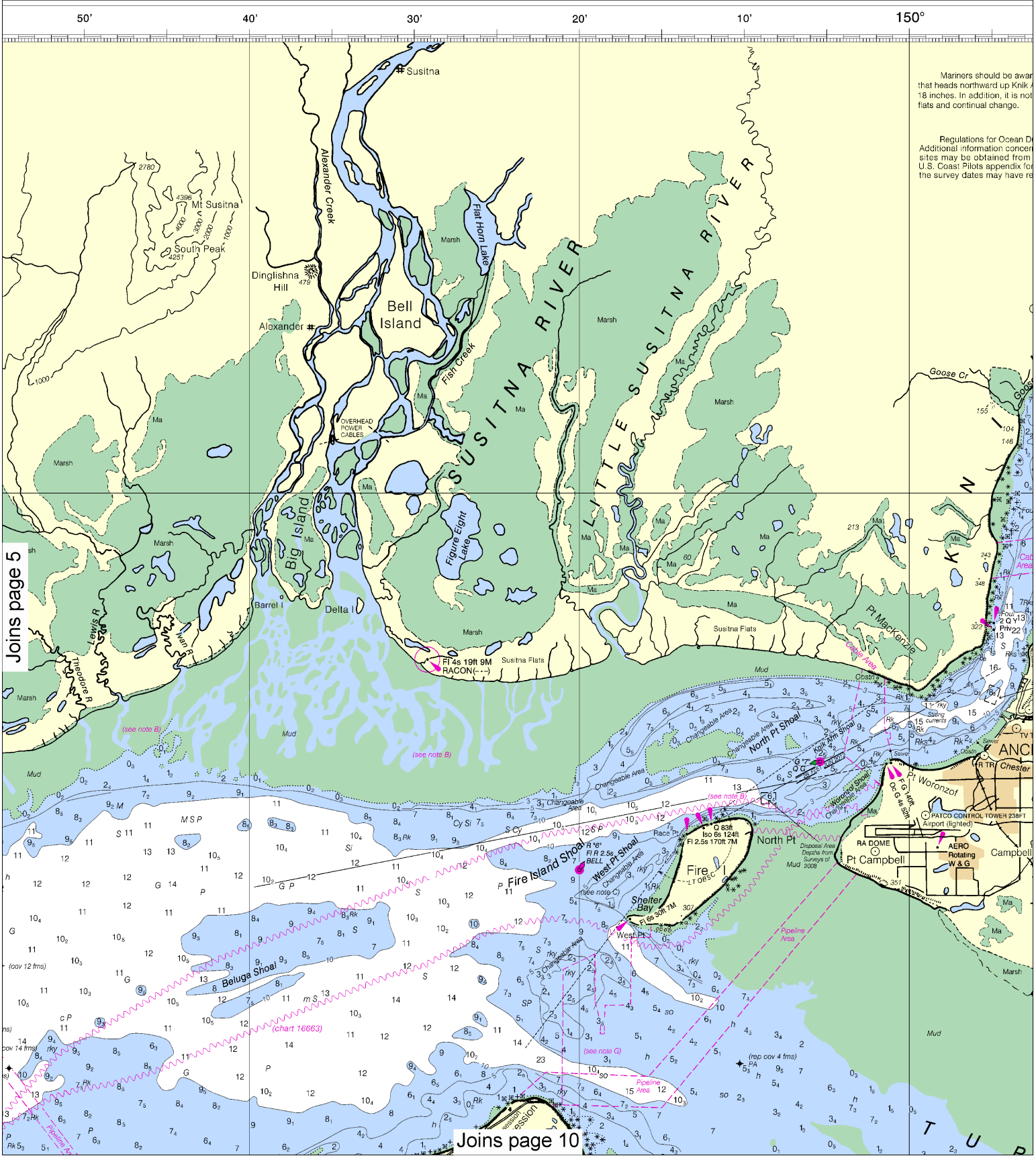
Joins page 6

Joins page 9



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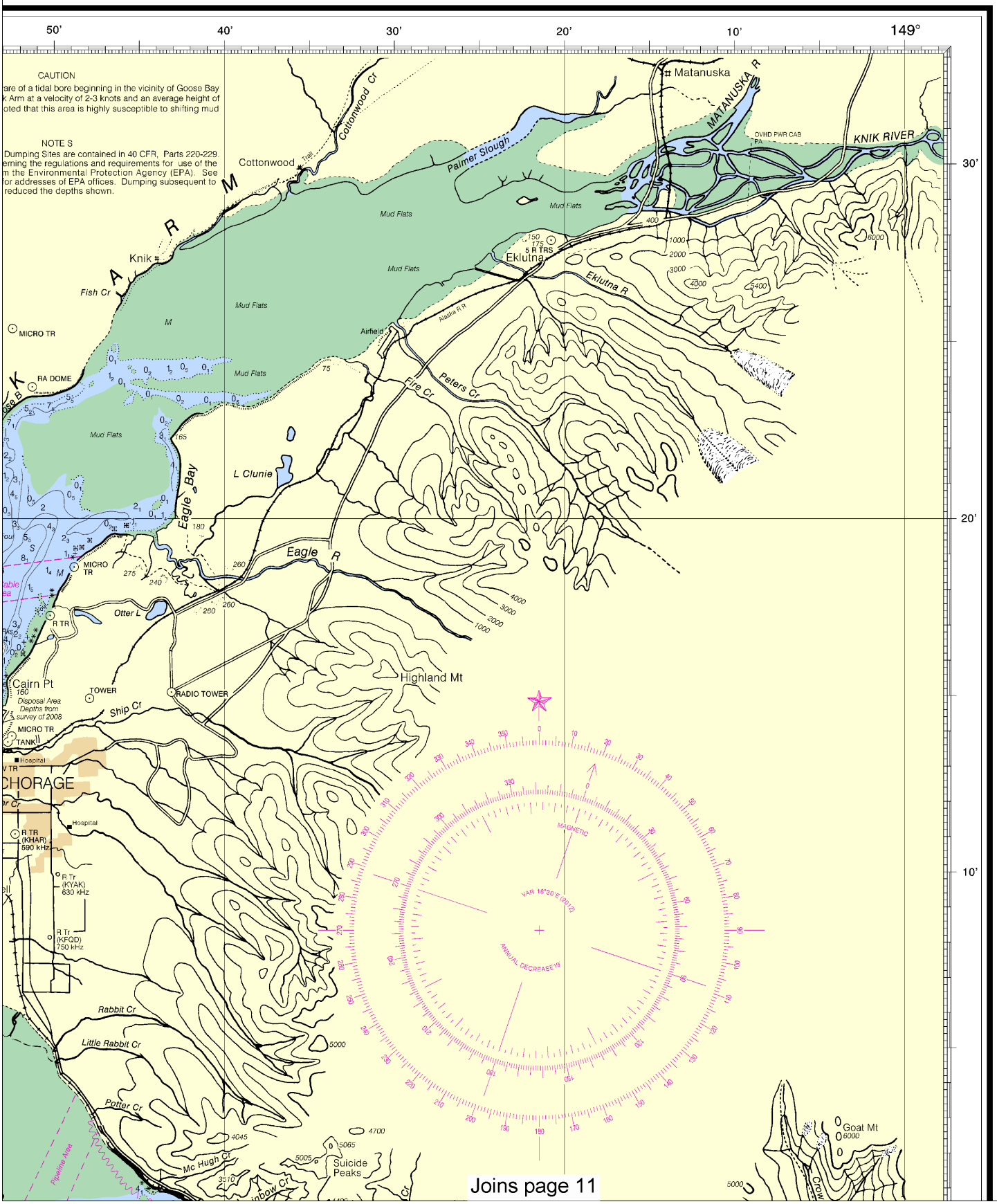
Note: Chart grid lines are aligned with true north.

SOUNDINGS IN FATHOMS

(FATHOMS AND FEET TO 11 FATHOMS)



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This BookletChart has been updated through: Coast Guard Local Notice To Mariners: 0513 1/29/2013,
NGA Weekly Notice to Mariners: 0713 2/16/2013,
Canadian Coast Guard Notice to Mariners: 1012 10/26/2012.

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HEIGHTS

Heights in feet above Mean High Water.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

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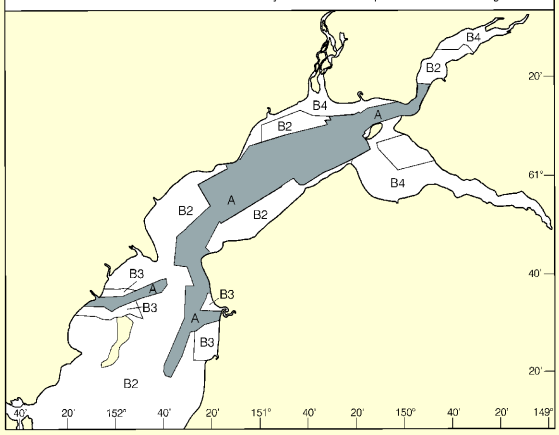
subject to shoaling, particularly at the edges.

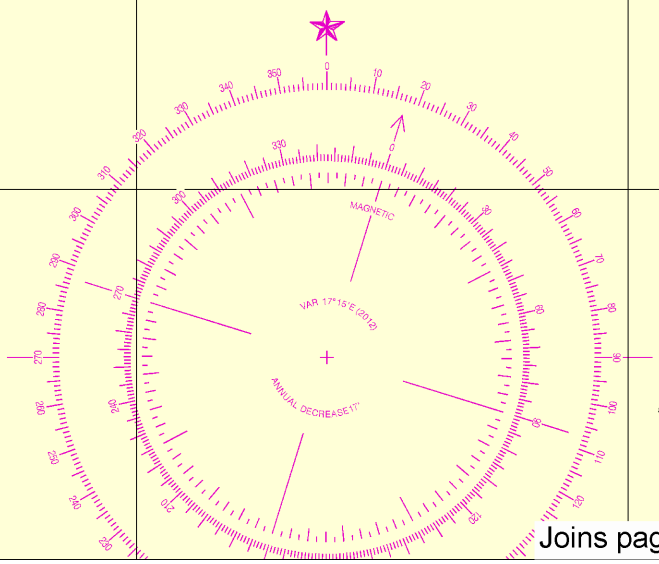
SOURCE

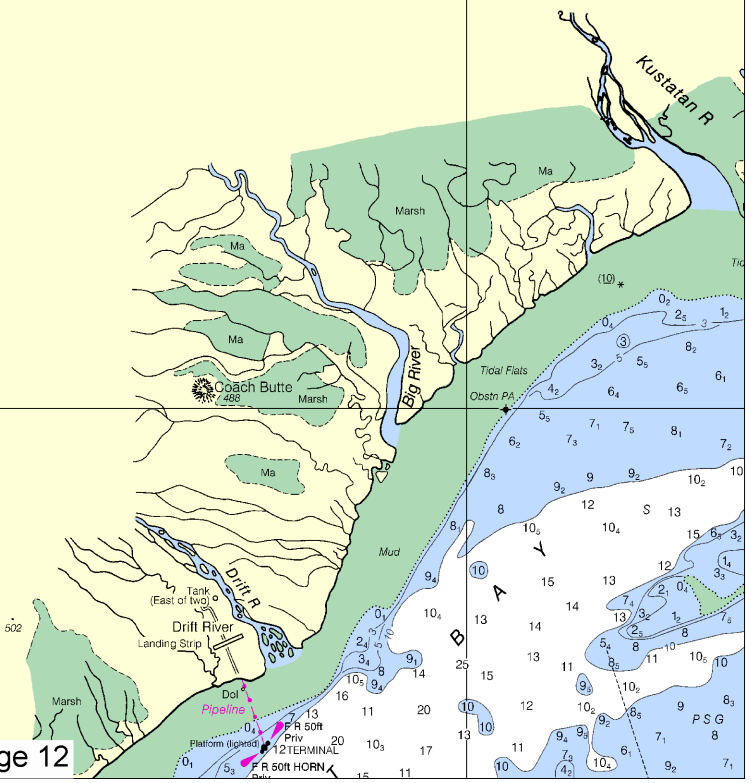
A 1990 - 2008	NOS Surveys	full bottom coverage
B2 1970 - 1989	NOS Surveys	partial bottom coverage
B3 1940 - 1969	NOS Surveys	partial bottom coverage
B4 1900 - 1939	NOS Surveys	partial bottom coverage



SOURCE DIAGRAM

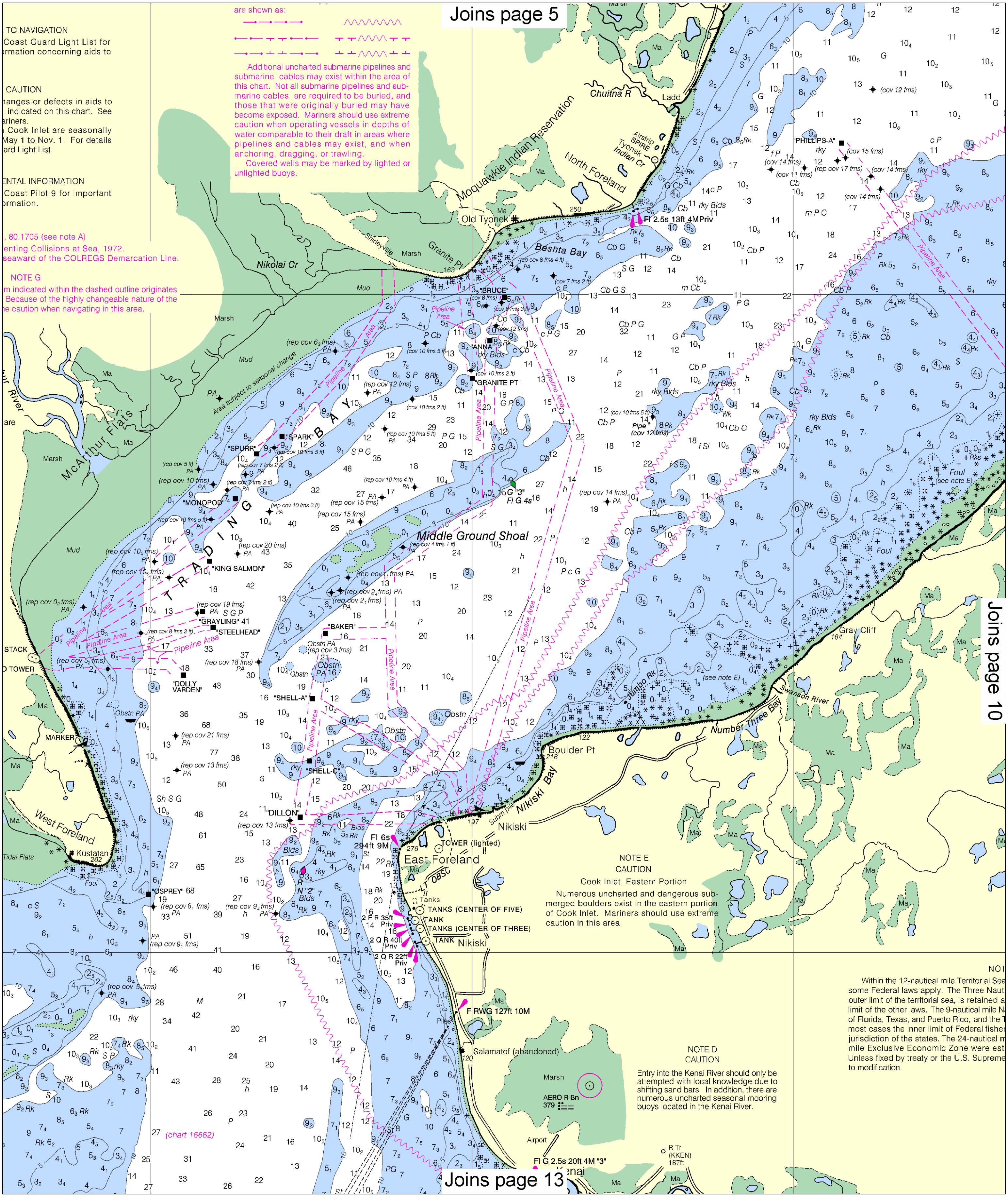
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

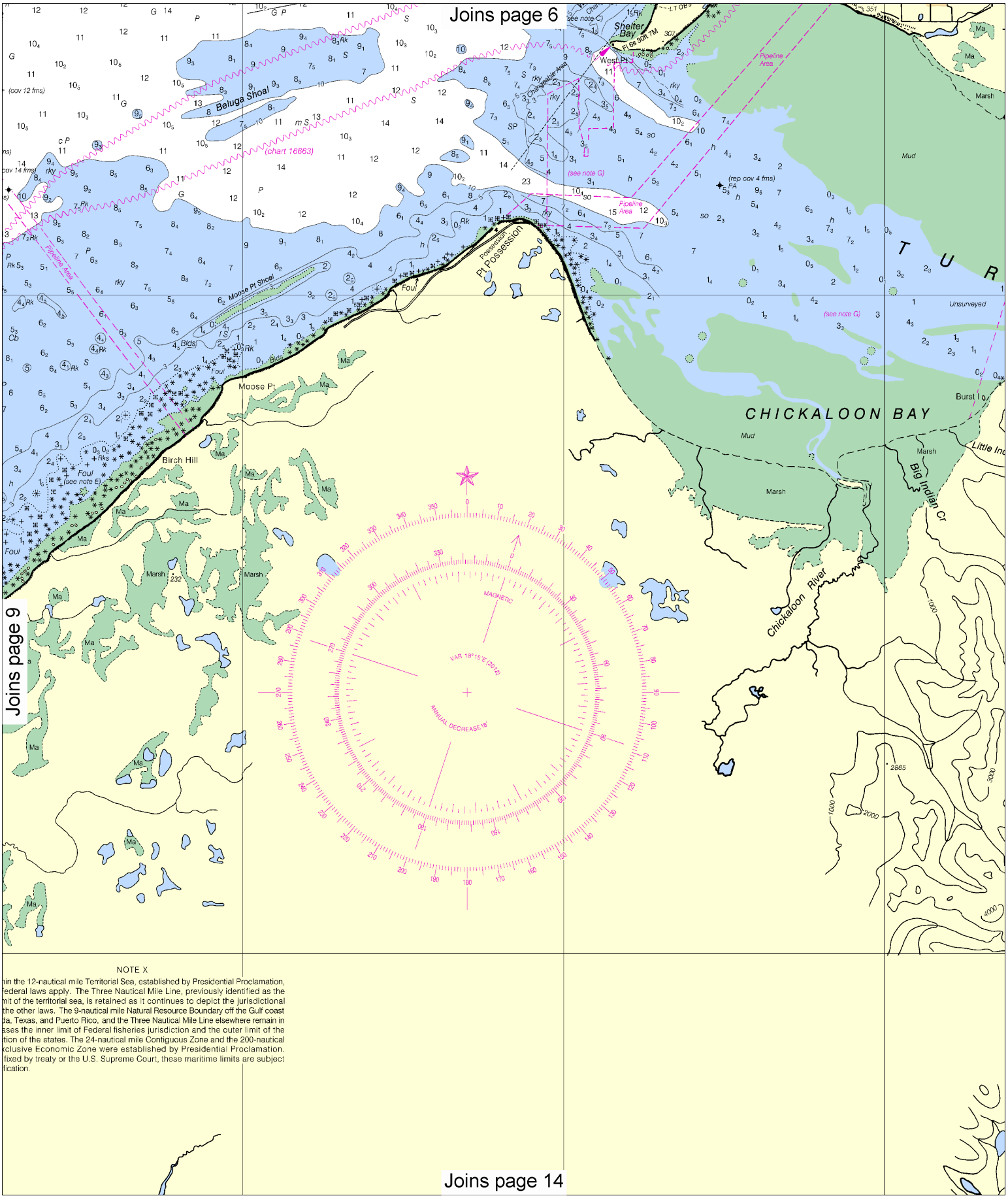




Joins page 12

Note: Chart grid lines are aligned with true north.

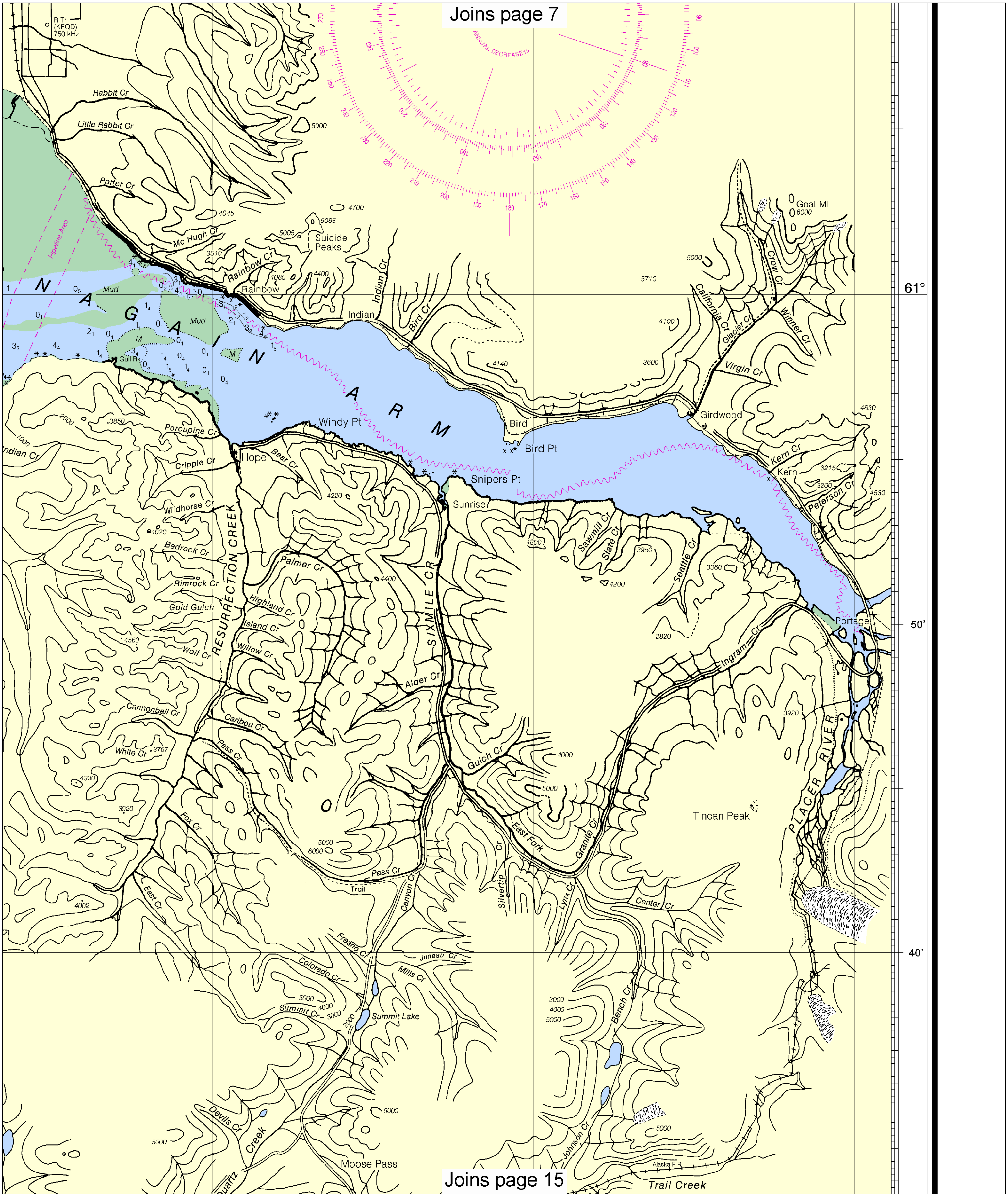

Joins page 5
Joins page 10
Joins page 13
are shown as:
Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.
Covered wells may be marked by lighted or unlighted buoys.
TO NAVIGATION
Coast Guard Light List for
rmation concerning aids to
CAUTION
hanges or defects in aids to
indicated on this chart. See
ariners.
Cook Inlet are seasonally
May 1 to Nov. 1. For details
ard Light List.
ENTAL INFORMATION
Coast Pilot 9 for important
ormation.
, 80.1705 (see note A)
enting Collisions at Sea, 1972.
seaward of the COLREGS Demarcation Line.
NOTE G
m indicated within the dashed outline originates
Because of the highly changeable nature of the
e caution when navigating in this area.
Moquawkie Indian Reservation
North Foreland
Chuitna R
Ladd
Tyonek
Indian Cr
Old Tyonek
Beshta Bay
Granite Pt
Shirleyville
Nikolai Cr
McArthur Flats
TRADING BAY
Middle Ground Shoal
Pipeline Area
Area subject to seasonal change
"BRUCE"
"ANNA"
"GRANITE PT"
"SPARK"
"SPURR"
"MONOPOD"
"KING SALMON"
"GRAYLING"
"STEELHEAD"
"DOLLY VARDEN"
"BAKER"
"SHELL-A"
"SHELL-C"
"DILLON"
"OSPREY"
"PHILLIPS-A"
Fl 2.5s 13ft 4M Priv
G "3" Fl G 4s
Fl 6s 294ft 9M
West Foreland
Kustatan
MARKER
STACK
TOWER
Gray Cliff
Swanson River
Number Three Bay
Jumbo Rk
Boulder Pt
Nikiski Bay
Nikiski
East Foreland
TOWER (lighted)
TANKS (CENTER OF FIVE)
TANKS (CENTER OF THREE)
TANK
2 F R 35ft Priv
2 Q R 40ft Priv
2 Q R 22ft Priv
F RWG 127ft 10M
Salamatof (abandoned)
AERO R Bn 379
Airport
Fl G 2.5s 20ft 4M "3"
Kenai
(chart 16662)
NOTE E
CAUTION
Cook Inlet, Eastern Portion
Numerous uncharted and dangerous submerged boulders exist in the eastern portion of Cook Inlet. Mariners should use extreme caution in this area.
NOTE D
CAUTION
Entry into the Kenai River should only be attempted with local knowledge due to shifting sand bars. In addition, there are numerous uncharted seasonal mooring buoys located in the Kenai River.
NOT
Within the 12-nautical mile Territorial Sea
some Federal laws apply. The Three Nauti
outer limit of the territorial sea, is retained a
limit of the other laws. The 9-nautical mile N
of Florida, Texas, and Puerto Rico, and the T
most cases the inner limit of Federal fisher
jurisdiction of the states. The 24-nautical m
mile Exclusive Economic Zone were est
Unless fixed by treaty or the U.S. Supreme
to modification.

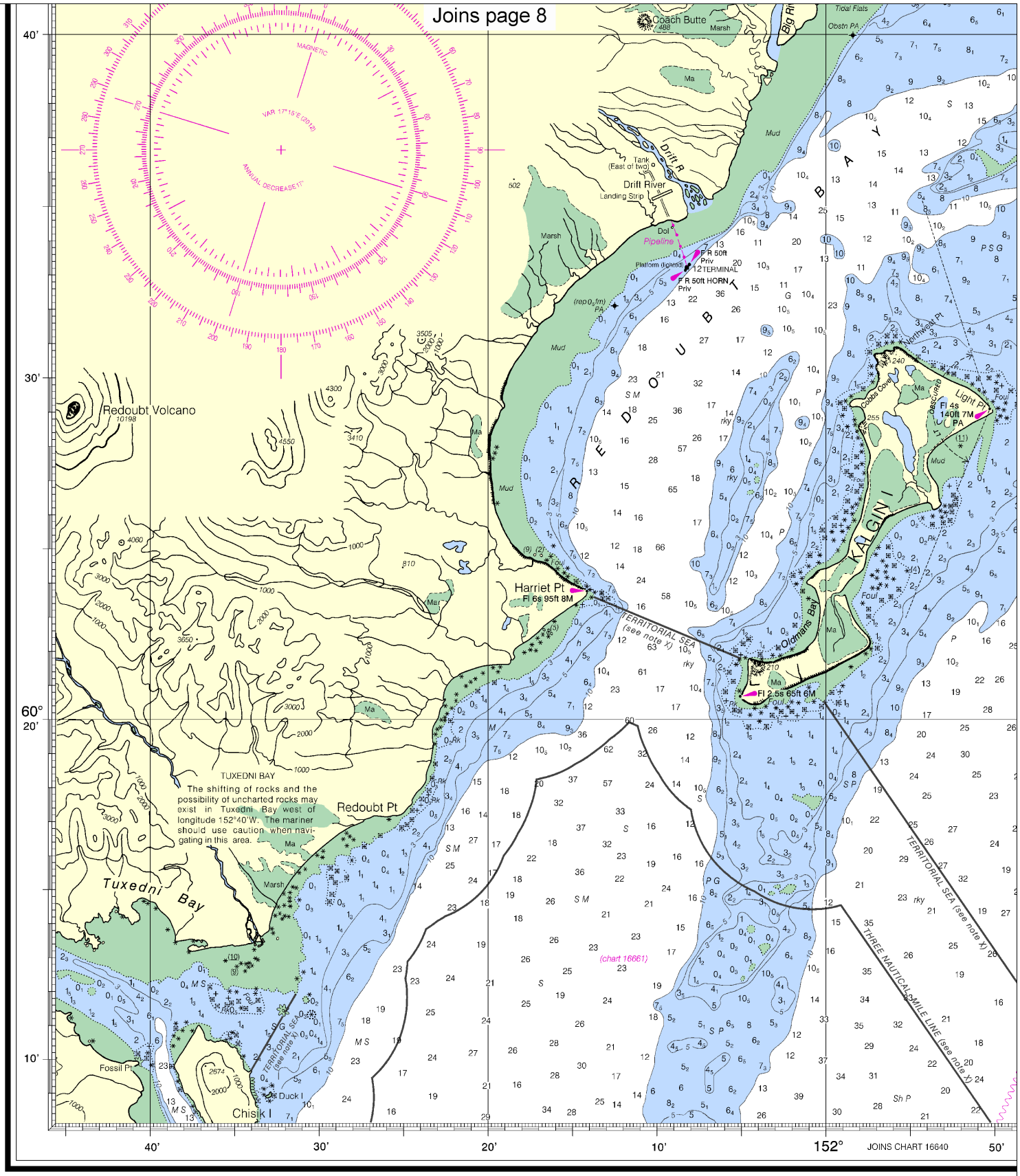


NOTE X

hin the 12-nautical mile Territorial Sea, established by Presidential Proclamation, ederal laws apply. The Three Nautical Mile Line, previously identified as the mit of the territorial sea, is retained as it continues to depict the jurisdictional the other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast da, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in ases the inner limit of Federal fisheries jurisdiction and the outer limit of the tion of the states. The 24-nautical mile Contiguous Zone and the 200-nautical xclusive Economic Zone were established by Presidential Proclamation. fixed by treaty or the U.S. Supreme Court, these maritime limits are subject fication.

Note: Chart grid lines are aligned with true north.


Joins page 7
R Tr
(KFQD)
750 kHz
ANNUAL DECREASE
Rabbit Cr
Little Rabbit Cr
Potter Cr
Pipeline Area
Mc Hugh Cr
Rainbow Cr
Rainbow
Suicide
Peaks
Indian Cr
Indian
Bird Cr
Goat Mt
Crow Cr
California Cr
Glacier Cr
Winner Cr
Virgin Cr
Girdwood
Bird
Bird Pt
Kern Cr
Kern
Peterson Cr
TURNAGAIN ARM
Mud
Gull Rk
Windy Pt
Porcupine Cr
Indian Cr
Hope
Bear Cr
Cripple Cr
Snipers Pt
Sunrise
Wildhorse Cr
Bedrock Cr
Rimrock Cr
Gold Gulch
Wolf Cr
Cannonball Cr
White Cr
RESURRECTION CREEK
Palmer Cr
Highland Cr
Island Cr
Willow Cr
Caribou Cr
Pass Cr
Fox Cr
East Cr
SIXMILE CR
Alder Cr
Sawmill Cr
Slate Cr
Seattle Cr
Portage
Ingram Cr
Gulch Cr
East Fork
Granite Cr
Silvertip Cr
Lynx Cr
Canyon Cr
Trail
Center Cr
Tincan Peak
PLACER RIVER
Fresno Cr
Juneau Cr
Colorado Cr
Mills Cr
Summit Cr
Summit Lake
Bench Cr
Devils Cr
Creek
Johnson Cr
Moose Pass
Alaska R R
Trail Creek
61°
50'
40'
Joins page 15



31st Ed., Apr. /12 ■ Corrected through NM Apr. 28/12
Corrected through LNM Apr. 24/12

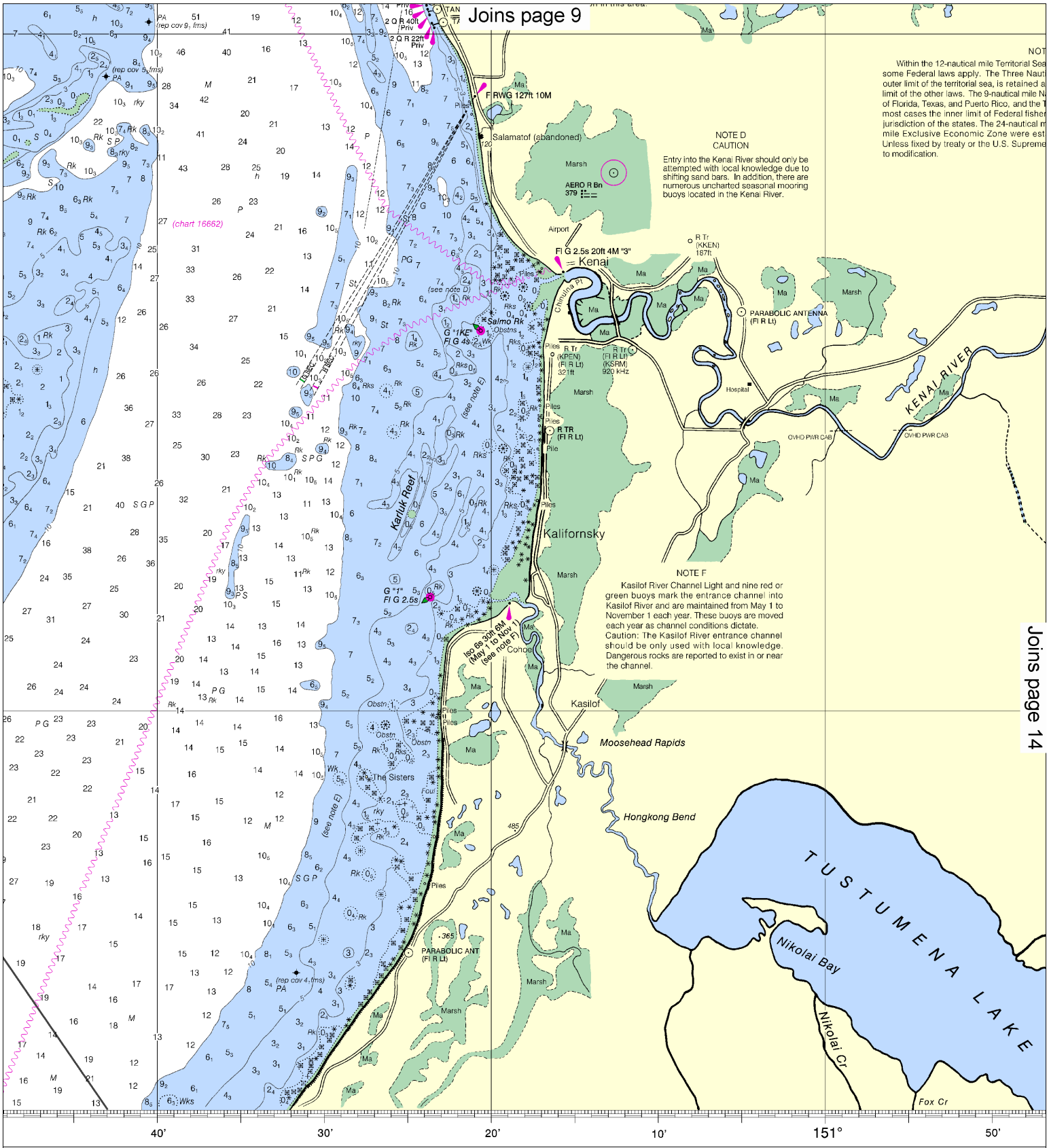
16660

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

Note: Chart grid lines are aligned with true north.



SOUNDINGS IN FATHOMS

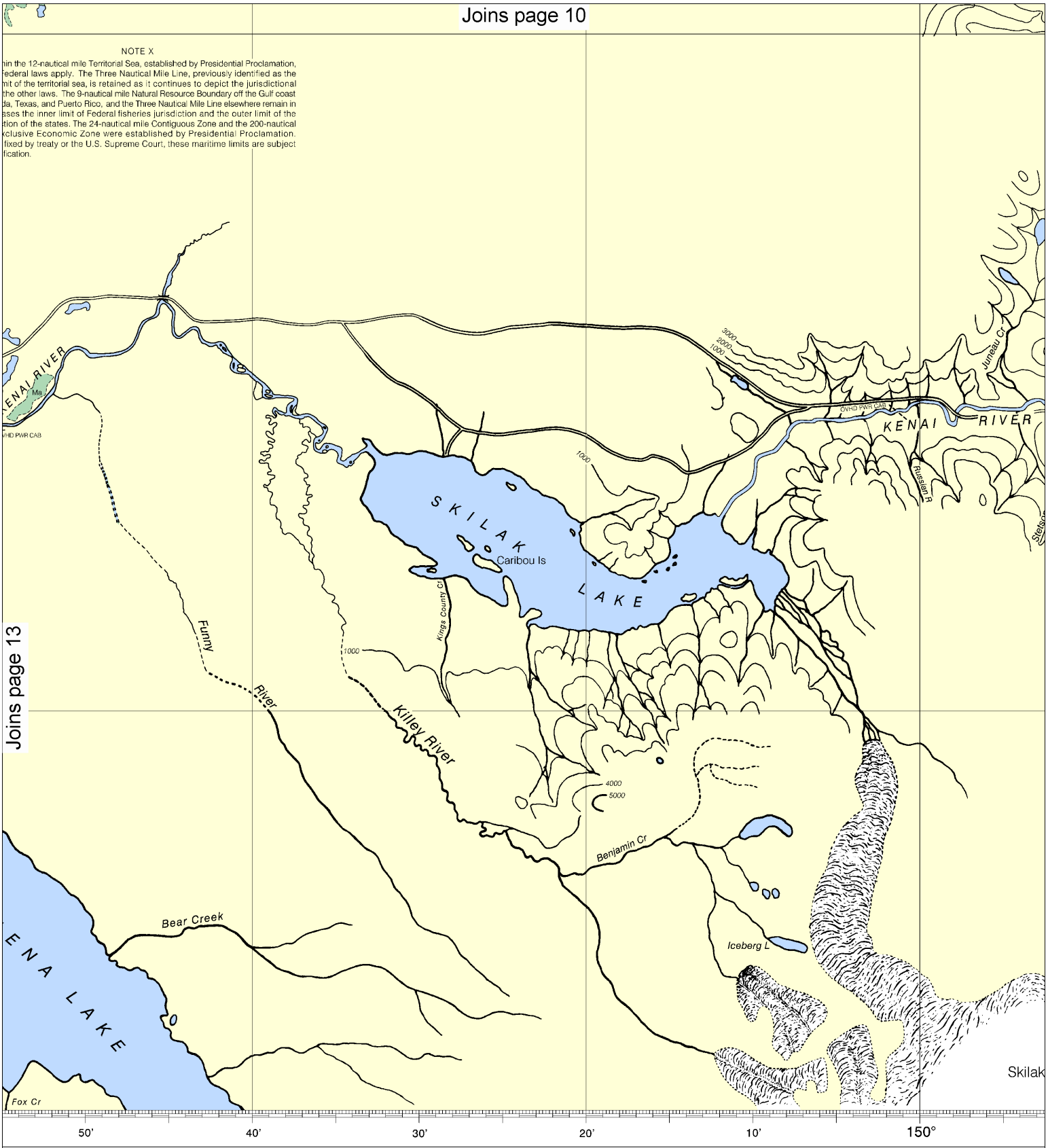
(FATHOMS AND FEET TO 11 FATHOMS)

Published at Washington, D.C.
U.S. DEPARTMENT OF COMME
NATIONAL OCEANIC AND ATMOSPHERIC AD
NATIONAL OCEAN SERVICE
COAST SURVEY

Joins page 10

NOTE X

in the 12-nautical mile Territorial Sea, established by Presidential Proclamation, ederal laws apply. The Three Nautical Mile Line, previously identified as the nit of the territorial sea, is retained as it continues to depict the jurisdictional the other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast da, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in ases the inner limit of Federal fisheries jurisdiction and the outer limit of the tion of the states. The 24-nautical mile Contiguous Zone and the 200-nautical xclusive Economic Zone were established by Presidential Proclamation. fixed by treaty or the U.S. Supreme Court, these maritime limits are subject fication.



Joins page 13

Published at Washington, D.C.
DEPARTMENT OF COMMERCE
ANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

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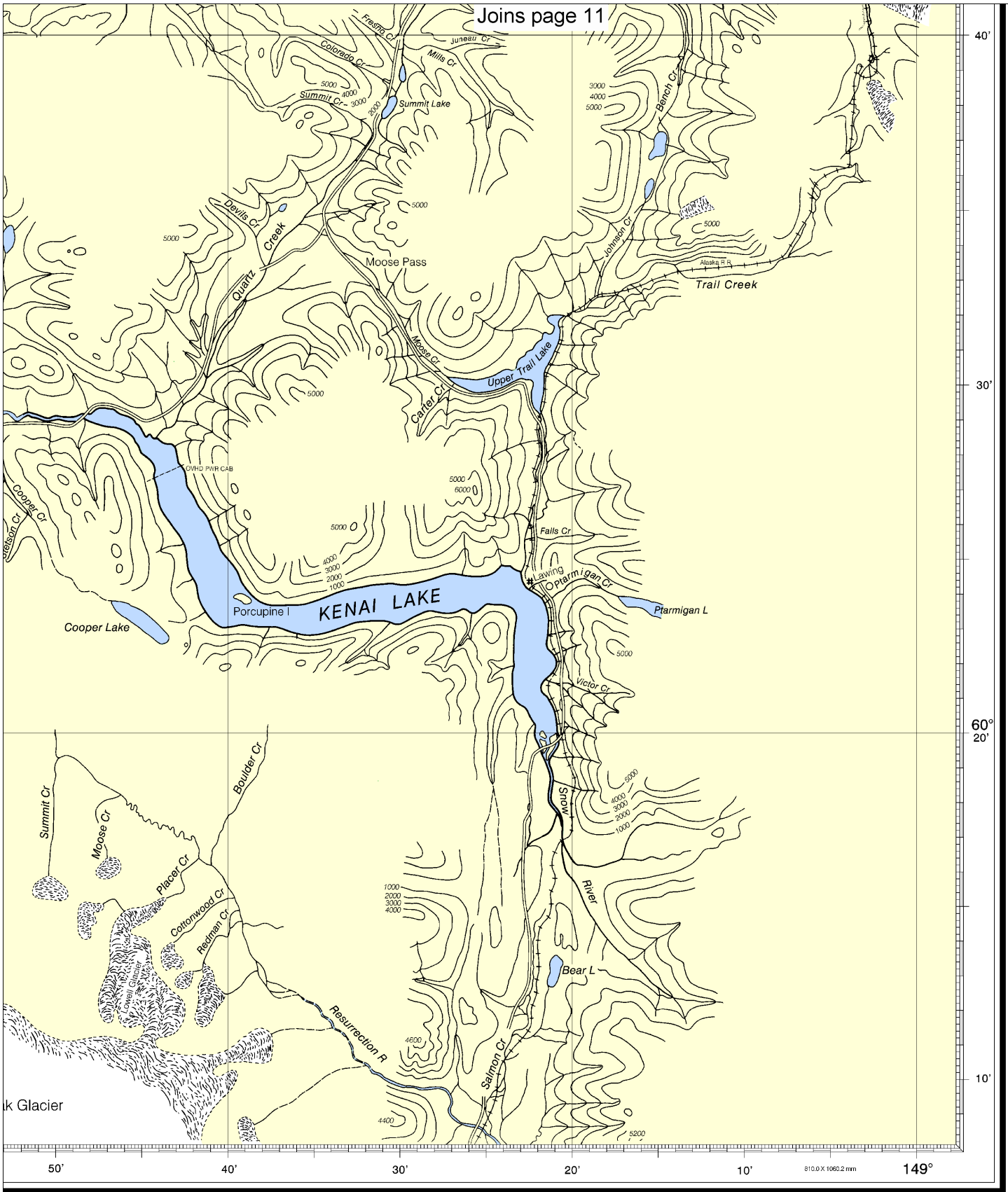
Note: Chart grid lines are aligned with true north.



FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Cook Inlet, Northern Part

SOUNDINGS IN FATHOMS - SCALE 1:194,154

16660

ED NO. 31

NSN 7642014011249

NGA REFERENCE NO. 16ACO16660

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.
Channel 9 – Communications between boats and ship-to-coast.
Channel 13 – Navigation purposes at bridges, locks, and harbors.
Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.
Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.
Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!

All Hazards NOAA Weather Radio NOAA's National Weather Service

NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.
http://www.nws.noaa.gov/nwr/

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National Weather Service	—	**http://www.weather.gov/**
National Hurrican Center	—	**http://www.nhc.noaa.gov/**
Pacific Tsunami Warning Center	—	**http://ptwc.weather.gov/**
Contact Us	—	**http://www.nauticalcharts.noaa.gov/staff/contact.htm**

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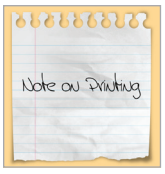

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NOAA's Office of Coast Survey The Nation's Chartmaker